



ABOVE AND BEYOND



The Environmental and Social Contributions of America's Highway Programs

January 2008



AMERICAN ASSOCIATION OF
STATE HIGHWAY AND
TRANSPORTATION OFFICIALS

AASHTO
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Letter from AASHTO's Executive Director

Dear Friends,

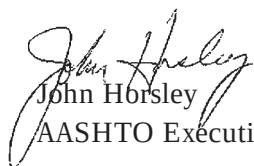
Transportation is more than just highways, bridges, trains, planes, and buses. Transportation connects people – to their jobs, to their communities, to each other. Transportation reaches across the nation to improve our quality of life and to ensure the well-being of our society, our economy, our environment, and our nation.

In 2001, AASHTO and FHWA created the Center for Environmental Excellence to promote environmental stewardship and encourage innovative ways to streamline the transportation delivery process. The Center has assisted state transportation agencies in developing numerous environmental stewardship practices, policies, and programs to help meet society's environmental, economic, and social goals for the future.

In 2003, AASHTO published the first *Taking the High Road* report which chronicled the important contributions that state transportation agencies were making across the country. This second report, *Above and Beyond*, documents new projects and programs that continue to advance both transportation and environmental stewardship. Within these pages you will find important facts on how transportation makes a real difference to our quality of life through investments in:

- context sensitive solutions,
- historic preservation,
- recycling,
- clean air,
- integrating transportation and land use,
- walking and biking trails,
- wetlands and water quality,
- wildlife preservation,
- sound barriers,
- scenic byways, and
- wildflowers and native vegetation.

For every good example shown here, there are hundreds more occurring all across our nation. Today, more than ever, transportation agencies are going “Above and Beyond” toward sustainable transportation.



John Horsley
AASHTO Executive Director







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Native flowers in Utah blend in
with the spectacular mountain
scenery. Photo courtesy of the
Federal Highway Administration.





Introduction

Transportation is about making connections.

Transportation agencies connect both people and communities – reaching out across sectors of society and helping to ensure the health of our society, our economy, and our environment. With such an important role to play, a transportation agency's decisions touch all aspects of society on a long-term basis. Transportation agencies are going beyond compliance – to do the right thing for communities and the environment. They are working to ensure that transportation projects fit into and enhance their communities and the environment.

Transportation agencies are partnering with other agencies and the public to advance ecosystem- or watershed-based approaches, ensuring that transportation infrastructure is planned in a manner that preserves and increasingly enhances “green infrastructure” – the vital natural resources on which our communities depend.

At the same time, transportation agencies are taking increasingly positive steps – on-the-ground actions to preserve wildlife or to enhance communities – not because they are required, but because it is the right thing to do. These initiatives are helping transportation agencies bridge the gap and contribute to the environmental, social, and economic well-being of their communities.

A look at the numbers shows impressive trends:

- 27 state transportation agencies have implemented or are in the process of developing environmental management systems.

Did you know?

22,000 Transportation Enhancement projects have been funded to reinvigorate communities and improve the environment, including support for bicycle and pedestrian programs, historic preservation, and other improvements.

- 41 states have made significant progress in implementing context sensitive solutions.
- 43 transportation initiatives in 30 states have been identified as exemplary ecosystem initiatives.
- Agencies have identified more than 100 simple actions taken to help wildlife along roadways.
- Over 550 state stewardship and streamlining programs, policies, and initiatives have been documented by the Federal Highway Administration (FHWA).
- Thousands of environmental stewardship practices, policies, and programs are currently in use by state transportation agencies for highway construction and maintenance.
- More than 17,000 projects to reduce air pollution from motor vehicles have been funded with transportation dollars.

Transportation Finances to Environmental Improvements

Transportation agencies are typically the largest single public works investor in any community or region. Over the past decade, State and Federal transportation agencies have funneled vast amounts of money into environmental stewardship efforts. Programs including the Center for Environmental Excellence, created by the American Association of State Highway and Transportation Officials (AASHTO) in cooperation with FHWA, and FHWA's environmental initiatives have provided a wealth of resources and technical support to help advance environmental stewardship.

The Center for Environmental Excellence by AASHTO was created to promote environmental stewardship and to encourage innovative ways to streamline the transportation delivery process. The Center is designed to serve as a resource for transportation professionals seeking technical assistance, training, information exchange, partnership-building opportunities, and quick and easy access to environmental tools. A wide range of resources and original work products to advance the state of the practice have been produced by the Center and distributed through the Center's website at www.environment.transportation.org.

From 2001 to 2005, FHWA targeted more than \$25 million dollars in Federal transportation funds designated for environmental streamlining to a range of environmental, planning, and realty programs and projects across the nation (49). These funds have advanced Federal and state efforts to address a range of environmental issues including:

- Air quality
- Context sensitive solutions
- Environmental process improvements
- Historic preservation



Travelers can stop to rest and learn about the local history at the Welcome Center on I-26 in western North Carolina.

- Water quality and wetlands
- Wildlife, vegetation, and habitat
- Land use and transportation
- Public involvement
- Planning process improvements
- Integrated approaches
- Geographic information systems
- Program management

On-the-Ground Efforts Promoted

On-the-ground actions have been promoted through an online database illustrating thousands of ongoing environmental stewardship practices, procedures, and policies for highway construction and maintenance. This database is located on the Center for Environmental Excellence website at www.environment.transportation.org (16).

Individual efforts include programs such as the New York State Department of Transportation Green and Blue initiative. In this program, the agency has charged its regional maintenance organizations with finding immediate environmental stewardship actions that can be taken along roadsides in the state, prompted by a worksheet that lists some of the many possible needs and stewardship “opportunities.” These opportunities run the gamut from sediment control efforts, improved vegetation management, and wildlife habitat improvements to installation of historic markers for cultural resources.



The North Carolina DOT maintains a Monarch butterfly sanctuary along I-26 in the mountains of western North Carolina, an example of the many actions transportation agencies are taking to help protect natural habitat. Milkweed attracts a variety of butterflies at the sanctuary.



On the Road to Sustainability

The transportation industry has proposed a future vision in which the transportation network must meet the needs of a growing population and an expanding economy while simultaneously reducing the environmental footprint of the system (1). The vision advocates a “triple bottom line” approach to achieve sustainable transportation, giving equal weight to economic, social, and environmental factors.

“The transportation decision makers of the future should adopt the triple bottom line as a yardstick to evaluate the sustainability of surface transportation system policies and performance in order to ensure that transportation strategies and investments will result in

- Robust economic growth;
- Better-than-before health of the environment; and
- Improved quality of life for all citizens.

‘The triple bottom line’ is a term coined to encourage sustainable development by evaluating performance on the basis of social, economic, and environmental impacts. Applying it to assess projects, programs, and policies sends a message that financial, cost-benefit, and economic considerations are not the sole drivers of transportation projects. Under this approach, economic, social, and environmental factors are to be given equal consideration.”



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Look to Our Future Today – Above and Beyond

Today the transportation sector's mission goes beyond ensuring mobility to achieving the larger societal goal of economic, social, and environmental sustainability. Approaches such as context sensitive solutions and integrated planning provide transportation agencies the tools to consider economic, social, and environmental factors as they develop transportation solutions. The successes described in this report illustrate a few of the many ways transportation agencies are continuing to go “Above and Beyond” and advance down the path toward sustainable transportation.





Planning and Designing Transportation to Fit the Community

For almost a decade, transportation agencies have been advancing the concept of context sensitive solutions (CSS), in which transportation projects are planned, designed, and implemented to meet the needs of communities and the environment. CSS adds to the traditional methods of project development by emphasizing collaborative and interdisciplinary decision making and by insisting that the contexts of a project are thoroughly understood before design decisions are made.

The concept has evolved since 1998, when transportation agencies first promoted “context sensitive design” for projects at the influential Thinking Beyond the Pavement conference in Baltimore. Five pilot CSS programs were established in Connecticut, Kentucky, Maryland, Minnesota, and Utah. Today, this concept has expanded to additional states. Across the country, highway agencies are advancing a philosophy that involves all stakeholders in developing transportation “solutions” that go far beyond designing projects.

Transportation leaders agree that every transportation project offers a unique opportunity to enhance safety, mobility, economy, and the natural environment. With these goals in mind, state and Federal highway agencies have established context sensitive solutions as the way of doing business across the nation. Five pilot states began in earnest to apply the principles of CSS to their programs in the early 1990s, and the Federal Highway Administration (FHWA)

Did You Know?

By 2007, 41 states had made significant progress implementing context sensitive solutions in their standard practices.



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has supported multiple programs to encourage the full implementation of CSS across the country. Numerous training courses, award programs, publications, and other initiatives advance the state of the practice. Today, every state can point to many projects that embody the goals of CSS.

A national “peer exchange” meeting held in the Fall of 2006 renewed focus on mainstreaming context sensitive solutions into transportation agencies. The event, sponsored by the Center for Environmental Excellence by AASHTO and FHWA, brought together representatives from 46 state transportation agencies and a range of Federal and private sector partners to share lessons learned and to develop a strategy to further integrate CSS concepts into day-to-day practice.

Following the peer exchange, FHWA and AASHTO partnered to establish strategic goals and initiate action plans to implement the goals. The focus of this successful partnership is to apply CSS not only to project design, but also to long-range transportation planning, acquisition, construction, and maintenance.

Vision Statement for Context Sensitive Solutions

In the year 2011, context sensitive solutions will

- ♦ be the way of doing business throughout the life cycle of a project from preplanning through maintenance, not just in state DOTs but throughout government agencies that are responsible for the development of transportation projects;
- ♦ result in solutions that provide a net improvement to the community and environment;
- ♦ meet needs and community goals as defined by a full range of stakeholders, including safety and mobility goals;
- ♦ include the full involvement of stakeholders throughout [the] decision-making [process] and be done in a way that is consistent with the broader vision for the community and environment; and
- ♦ include teams of multidisciplinary experts who all contribute to developing solutions together with stakeholders.

– Neil Pedersen, Administrator, Maryland State Highway Administration, presented at the 2006 CSS Peer Exchange

The States Move Forward

State transportation agencies are in different phases of CSS implementation, but all states are taking steps to implement context sensitive solutions at the project level or at the organizational level according to a national assessment conducted in 2007 by FHWA. The assessment found that 41 states have made significant progress with CSS implementation, including 16 states that have “mature” or “exemplary” programs or activities underway, meaning CSS is routinely incorporated into the agency culture. The remainder of the states initiated CSS efforts with many making some progress toward CSS implementation (9).

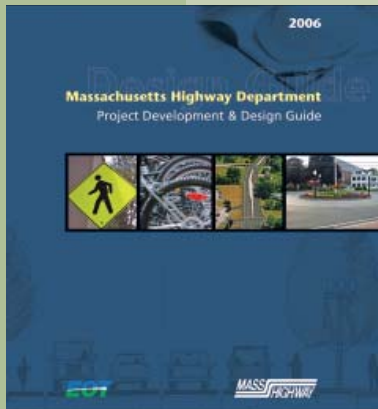
An AASHTO survey conducted in 2005 found that all 50 states are aware of the principles of context sensitive solutions. In addition, the survey found that

- 35 states had issued formal policies related to CSS;
- 37 states were undertaking steps to incorporate CSS into their project development process;
- 47 states had held seminars, workshops and/or provided CSS training to staff;
- 25 states developed or were developing public involvement plans or practice early stakeholder involvement;
- 25 states had taken specific steps to incorporate CSS into their agency culture;
- 23 states offered CSS training to consultants;
- 19 states developed CSS manuals or related website content;
- 14 states established CSS-related partnerships with university engineering departments for development and/or delivery of CSS training programs;
- 8 states had formed CSS-dedicated internal committees or teams; and
- 6 states had included CSS in their agency strategic plans.

Exemplary CSS Practices

The progress in implementing CSS is evident in the sheer number of examples of CSS policies, programs, guidelines, and manuals coming from the states. The Center for Environmental Excellence by AASHTO's Best Practices in Context Sensitive Solutions competitions garnered 75 applications from 33 states in 2005 and 62 applications from 31 states in 2006.

The following award-winning examples of CSS approaches illustrate how context sensitive solutions are truly becoming the way of doing business in transportation agencies across the nation.



Massachusetts Highway Department's 2006 design guide represented a change in approach to incorporate context sensitive solutions on all projects in the state.



State and Federal transportation officials and other stakeholders met in Portland, Oregon in October 2006 to develop a strategic plan for mainstreaming context sensitive solutions.

Massachusetts Project Development and Design Guide

The 2006 *Massachusetts Project Development and Design Guide* received numerous awards, including AASHTO's 2006 CSS competition and FHWA's 2007 Environmental Excellence Award. The guide establishes flexible design standards, is strongly multi-modal, explicitly incorporates community setting as a design factor, dramatically re-shapes the project development process, and supports early planning and coordination with all stakeholders to create safe, attractive roads (15).

Oregon Bridge Program

Also honored with AASHTO and FHWA awards, Oregon Department of Transportation's statewide bridge delivery program combines the concepts of CSS and sustainability, applying them to a program for repairing or replacing more than 300 bridges in the state. The approach includes a streamlined programmatic permit for all of the bridges, outcome-based environmental standards, and extensive stakeholder involvement. The approach will help meet the state's goals of maintaining mobility; stimulating the economy; employing efficient and cost-effective delivery practices; building projects that are sensitive to their communities and landscape; and capitalizing on funding opportunities (14).

Texas DOT Safety Rest Area Program

Texas DOT's 56 Safety Rest Areas are classic examples of how design elements can be context sensitive. Designers of these rest areas took great care to reflect the characteristics of the local environment and culture by customizing them with attractive structures, regional themes, exhibits, and information to educate travelers. Designed in collaboration with local officials and the public, each rest area is considered the "front door" for its community, promoting each region's unique features and invoking a sense of civic pride for those who live nearby. At the same time, the facilities meet the transportation agency's goal to provide safe rest stops for drivers (15).



The Donley County Safety Rest Area on U.S. 287 reflects a nearby town's historic role as a railroad hamlet. The Texas Department of Transportation's Safety Rest Area Program is helping to ensure driver safety while promoting tourism and civic pride across the state.

Photo courtesy of TxDOT.

Washington State DOT CSS Policies, Procedures, and Standards

Washington State DOT's context sensitive solutions approach can be seen throughout all levels of the agency – from planning through construction and maintenance. WSDOT has coordinated efforts to develop context sensitive solutions from executives to technical staff. The agency encourages its employees to look beyond basic transportation issues and develop projects that are integrated within their unique contexts. These priorities are implemented through numerous policies, procedures, manuals, partnering agreements, training programs, liaison positions with resource agencies, and public involvement techniques (15).

New York State DOT CSS Implementation Initiative

NYSDOT is committed to improve the process by which it delivers projects and services, including a comprehensive effort to incorporate context sensitive solutions into its business practices. The initiative includes implementation guidelines, public involvement plans, training, and recognition of best practices (14).



This rendering helped visualize options for bike and passenger rail as part of the context sensitive long-range transportation plan for Ohio's Eastern Corridor. *Image courtesy of Meisner & Associates.*

Federal Lands Efforts

FHWA's Office of Federal Lands Highway (FLH) delivers projects from the Atlantic to the Pacific and from the tropics to the arctic, in partnerships with Federal land management agencies and Tribal governments. The FLH embraces a CSS approach for all projects from early planning through construction. As a part of the 2008 – 2012 Business Plan entitled “Improving Transportation to and within Federal and Tribal Lands,” FLH is raising its self assessment to exemplary levels wherever FLH performance measures are set. Consequently, FLH helps to set the standards of the CSS philosophy for the rest of the nation.

Partnerships to Achieve CSS: Ohio's Eastern Corridor

A long-range transportation plan developed for the eastern corridor near Cincinnati, Ohio, demonstrates how wide-ranging partnerships can be used to develop solutions that integrate multi-modal solutions, land-use planning, and environmental stewardship. Nineteen separate political jurisdictions partnered to develop a transportation plan that includes highway, bus, rail, bicycle, pedestrian and local network projects. A key element in the plan was the use of land use vision planning, which involved citizens, elected officials, and other stakeholders to develop a “green infrastructure” program focusing on sensitive features of the Little Miami River Valley (15).

Research to Advance Context Sensitive Solutions

Numerous research efforts are underway to advance context sensitive solutions across the nation. Research being performed for state transportation agencies under the National Cooperative Highway Research Program will look at:

- CSS and its use of multidisciplinary teams; and
- quantification of the benefits of CSS in transportation.

FHWA efforts include the following initiatives planned under the Surface Transportation Environment and Planning Cooperative (STEP) Research program:

- establishing a CSS Clearinghouse for information and resources,
- advancing CSS implementation and stakeholder exchange, and
- utilizing a pooled-fund study to address challenges in implementing CSS.



Integrating Transportation and Land Use to Promote Sustainable Communities

The vital role that transportation plays in land use planning has been recognized nationwide in recent years. New strategies to integrate transportation planning with broader land use decisions are emerging as Federal, state, and local agencies work to find the best solutions to promote sustainable communities.

While land use planning is typically done at the local level, many transportation agencies are working to help communities develop a long-term vision for transportation and land use. Such visioning strategies bring together agencies, local elected officials, interest groups, and the public to help determine the values, goals, and objectives that are important for the community or region.

Transportation agencies are taking a variety of actions to support land use plans and visions developed for communities.

For example, transportation agencies are planning, designing, and implementing transportation projects that are consistent with community visions and goals.

In some cases, agencies are providing technical assistance to local governments for planning, acquiring right-of-way, or zoning revisions to support transit-oriented development or other local transportation options. Transportation agencies also are providing financial incentives for smart growth decisions, such as funding pedestrian and bicycle infrastructure in key areas.

Did You Know?

On its website, the FHWA lists 30 separate methods and strategies to assist state and local agencies to integrate transportation and land use.



Transportation projects are incorporating features to promote sustainable land uses and provide access to businesses and recreational opportunities.

Broader, landscape-level planning that incorporates transportation elements is advancing through various initiatives, including “green infrastructure” and “ecosystem-based” approaches to planning, such as the EcoLogical initiative promoted by the Federal Highway Administration and other Federal agencies. These initiatives focus on entire watersheds or ecosystems in an effort to preserve existing resources, reconnect natural systems, and focus economic growth in a sustainable manner.

Land Use in Transportation Planning

Provisions of the 2005 Federal transportation legislation underscore the importance of considering land use in transportation planning. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and statewide and metropolitan planning regulations require state and local transportation agencies to consult with resource agencies – including those responsible for land use planning – as part of the transportation planning process.

SAFETEA-LU also amends an existing provision that listed environmental factors that must be considered in the transportation planning process. The law requires States and MPOs to consider ways to promote consistency between transportation improvements and state and local planned growth and economic development patterns. The law does not mandate consistency between transportation and land use plans, but does require consideration of actions and strategies that would promote consistency.

In addition, the law requires state and local transportation agencies to use visualization techniques to help communicate statewide and metropolitan transportation planning concepts to the public. Such techniques may include artist renderings, models, maps, photo simulations, interactive geographic information system (GIS) tools, and computer simulations. GIS-based tools are available to help communities design, test, and visualize future land use scenarios.

The law also addresses land use considerations at the project level, stating that project purpose and need statements may include as an objective supporting land use, economic development, or growth objectives for an affected area.

Taken together, these new requirements are reinforcing an already increasing trend toward integration of transportation and land use considerations across the nation.

Federal Transportation Funds Available for Land Use Planning

Federal-aid highway funding programs that can be used to support coordinated transportation and land use planning and project development include:

- **Transportation Enhancements** – funding for transportation-related improvements, including sidewalks, curbs, trails, and restoration of historic structures
- **Transportation and Community and System Preservation Program** – funding for innovative programs to link transportation and land use
- **Congestion Mitigation and Air Quality Improvement Program** – funding for projects with demonstrated air quality benefits
- **Metropolitan Planning** – funding distributed to metropolitan planning organizations to conduct metropolitan planning activities can be used for transportation-land use coordination activities
- **State Planning and Research** – funding distributed to states for planning and research activities can be used for transportation-land use coordination activities

Transportation Contributions to Sustainable Land Use

A few of the many examples of transportation contributions to promote sound land use decisions are summarized below.

Illinois Tomorrow Corridor Planning Grants

This program, administered by the Illinois DOT, provides \$15 million over 5 years to help local governments develop plans that integrate transportation and land use/development decision making (52).

Oregon Community Solutions Team

A team including representatives of Oregon DOT and four other state agencies provides quick-response technical assistance to communities that have a transportation-related land use issue, such as working with a major employer to stay downtown instead of moving to an undeveloped “greenfields” location (52).



State officials developed a statewide 30-year visioning process for a transportation system based on the community's values and priorities. *Photo courtesy of the Idaho Department of Transportation.*



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Tools for Integrating Land Use and Transportation

Planning Activities

- Corridor Planning
- Interchange Area Planning
- Linking Planning and NEPA
- Planning for Transit-Oriented Development
- Regional Agency Support for Local Planning
- Regional Visioning and Scenario Planning
- State DOT Support for Comprehensive Planning
- Subarea/neighborhood Planning
- Tier 1 EIS for Transportation Corridors

Public Involvement

- Community Outreach Tools
- Community Visioning Workshops and Charrettes
- Land Use Scenario Development
- Visualization/Simulation Techniques

GIS and Technical Analysis

- CommunityViz
- CorPlan
- GIS Environmental Mapping/Analysis
- MetroQuest
- Paint the Town/Paint the Region
- PLACE3S
- Rural Traffic Shed Model
- Smart Growth Index
- Space Syntax/Ped-GRiD

Project Prioritization and Funding

- Funding for Streetscape, Urban Design, and Multimodal Improvements
- Project Screening and Selection Criteria
- State Fiscal and Regulatory Incentives
- Transit Corridor and Station Area Development Programs

Design Guidelines and Standards

- Access Management
- Context Sensitive Design/Solutions
- Local and Regional Road Design Guidelines
- Model Zoning and Subdivision Ordinances
- Pedestrian and Bicycle Facilities Design Guidelines/Programs
- Road Swaps and Transfers

Source: Federal Highway Administration, *Toolkit for Integrating Transportation and Land Use* website, <http://www.fhwa.dot.gov/planning/landuse/tools.cfm>

Seattle, WA: I-405 Corridor Program

The I-405 Corridor Program was a partnership among communities, elected officials, agencies, and advocacy groups to define a 20-year transportation vision for the 30-mile I-405 corridor in east suburban Seattle. Led by the Washington State DOT, the program undertook a streamlined environmental impact statement approach to reach consensus on a \$7 billion transportation package to address mobility and access needs. The package includes multi-modal transportation projects and land use strategies (52).

Albany, NY: Community and Transportation Linkage Planning Program

The Community and Transportation Linkage Program helps to integrate land use and transportation decisions by providing metropolitan planning organization staff or private consultant support to local community planning initiatives. The funded planning studies are helping to implement key policies of the New Visions regional transportation plan through adoption by localities of land use plans, highway and transit designs, zoning ordinances, driveway, sidewalk, bicycle accommodation, and other standards (52).

Idaho Department of Transportation

Idaho Department of Transportation brought together more than 750 people from public and private sectors in the state to envision their preferred future by defining a statewide transportation system for the next 30 years. Recognized as a notable practice in AASHTO's 2004 Best Practices in Smart Growth and Transportation competition, the unique public outreach process developed a comprehensive vision statement for the movement of people, materials, products and information, based on the community's values and priorities (13).

New Jersey Future in Transportation Program (NJFIT)

New Jersey Future in Transportation Program (NJFIT) illustrates a new paradigm for developing transportation projects in partnership with municipalities and other agencies in the state. A winner of the FHWA and Federal Transit Administration's 2006 Transportation Planning Excellence Award, the program uses corridor studies – called Integrated Land Use and Transportation Planning Studies – and the potential for designation as Transit Villages to help communities make sound land use and transportation decisions (55). The initiative also was recognized as a notable practice in AASHTO's 2004 Best Practices in Smart Growth Competition.

New Jersey's Integrated Land Use Program used an interactive community involvement process to help establish a vision for guiding transportation and land use changes. The process used visioning tools, such as this rendering for improvements to Route 9 in Ocean County. *Photo courtesy of the New Jersey Department of Transportation.*

Denver Regional Council of Governments

Denver Regional Council of Governments developed the Metro Vision 2030 as the Denver region's comprehensive 25-year plan for managing future growth while addressing development, transportation needs, and environmental quality. Through Metro Vision 2030 and the associated Regional Transportation Plan, Regional Open Space Plan, and Clean Water Plan, several unique and innovative planning and implementation tools are being used to integrate transportation and land use at the local and regional levels (55).



New Jersey Department of Transportation

New Jersey Department of Transportation implemented a streamlined approach to the Route 1 and Route 9, Section 4T, project in the City of Elizabeth. Right-of-way design, acquisition, and relocation activities were accomplished with the highest regard for the impacted environmental, social and economic constituencies. The project involved the replacement of the Elizabeth River Viaduct to improve traffic flow. It impacted 11 businesses, 20 multi-family residential dwellings, a motel occupied by long-term tenants on public assistance, and a boarding house with 17 occupants. There were 82 residential occupants requiring relocation assistance. The project also necessitated the functional replacement of the city's public works facility. The project required that close coordination and integration be

maintained between numerous agencies and the public. Within two and a half years, the entire process was complete, and the occupants were relocated to decent, safe, and sanitary housing (23).

Federal Highway Administration

The Federal Highway Administration is supporting a range of efforts to improve transportation and land use, including development of the Toolkit for Integrating Land Use and Transportation website. The website lists 30 separate methods and strategies to assist state and local agencies in integrating transportation and land use, along with implementation examples for each. The agency also is working to promote use of geographic information systems, including development of a GIS in Transportation website.

Land Use and Transportation Research

A variety of research initiatives are underway to promote integration of land use and transportation planning. A project to look at approaches for transportation project land use forecasts is being done as part of the National Cooperative Highway Research Program. The project will identify best practices and methods to analyze population size and composition; land use distribution; and location and timing of growth (59).

In addition, FHWA's Surface Transportation Environmental and Planning Cooperative Research Program (STEP) will look at enhancing techniques to engage the public and policy-makers in land use and transportation decision making; effective applications of technical and non-technical approaches and tools; and addressing jurisdictional and institutional issues. The program also will also promote the use of scenario planning to provide a framework for developing a shared vision for the future. STEP research also will support a variety of initiatives to promote geographic information system technology (42).





Enhancing Our Quality of Life

Since 1992, transportation programs have provided more than \$7.8 billion to fund more than 22,000 projects aimed at improving America's communities (68). Improvements funded by the Federal Transportation Enhancement activities can be seen across the nation on projects including bicycle and pedestrian lanes and trails, historic preservation efforts, landscaping and scenic beautification, transportation museums, and environmental mitigation.

The Transportation Enhancement activities have been funded continuously since 1992, when they were first established under the Intermodal Surface Transportation Act of 1991 (ISTEA). Most recently the program was reauthorized as part of Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which provided \$4 billion for the program from 2005 through 2009.

To receive Transportation Enhancement funds, activities must relate to surface transportation and must fall into one or more of 12 eligible categories:

1. Provision of facilities for pedestrians and bicycles
2. Provision of safety and educational activities for pedestrians and bicyclists
3. Acquisition of scenic easements and scenic or historic sites (including historic battlefields)

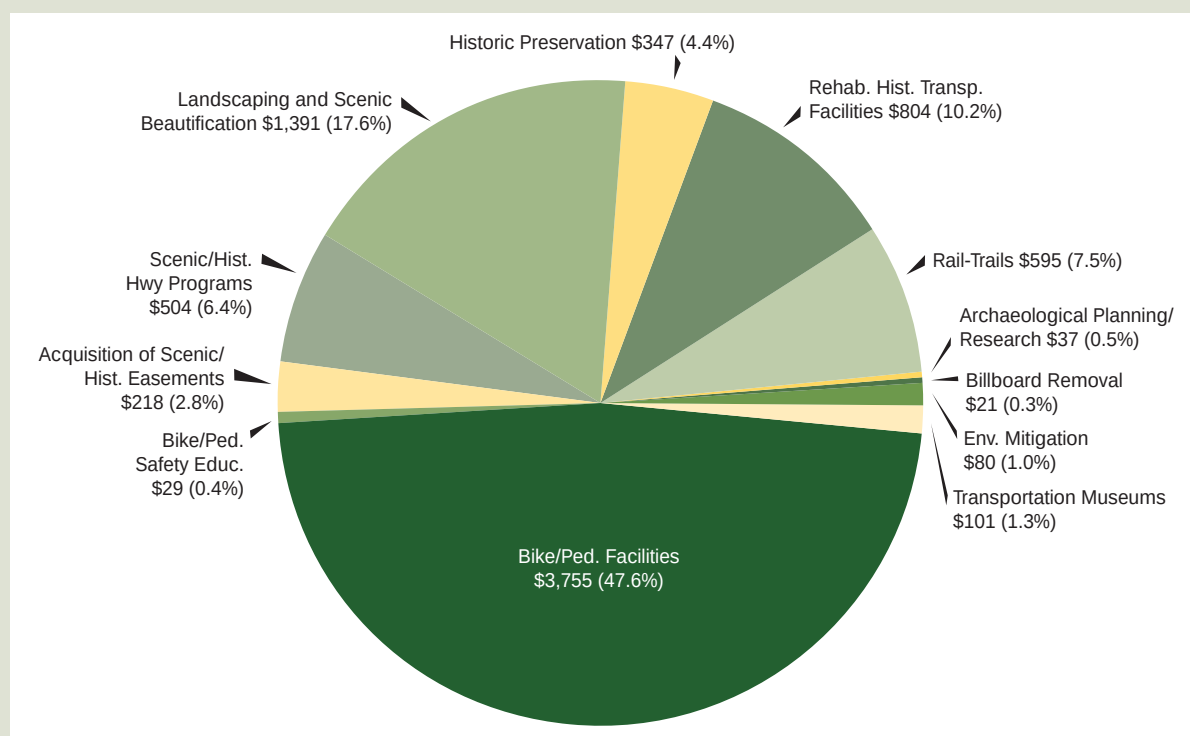
Did You Know?

Transportation is enhancing Americans' quality of life, funneling billions of dollars to more than 22,000 projects that are reinvigorating communities and restoring the environment.



4. Scenic or historic highway programs (including the provision of tourist and welcome center facilities)
5. Landscaping and other scenic beautification
6. Historic preservation
7. Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals)
8. Preservation of abandoned railway corridors (including the conversion and use of the corridors for pedestrian or bicycle trails)
9. Inventory, control, and removal of outdoor advertising
10. Archaeological planning and research
11. Environmental mitigation to
 - address water pollution due to highway runoff, or
 - reduce vehicle-caused wildlife mortality while maintaining habitat connectivity
12. Establishment of transportation museums

Distribution of Federal Funds by Transportation Enhancement Activity FY 1992 through FY 2006
(Federal funds in millions)



Source: National Transportation Enhancements Clearinghouse

Transportation Enhancement Project Contributions

Successful examples of Transportation Enhancement projects are seen across the nation, from main streets to remote scenic vistas. Wherever they are found, these projects truly are enhancing Americans' way of life. The National Transportation Enhancements Clearinghouse (NTEC), an information service sponsored by the Federal Highway Administration and Rails-to-Trails Conservancy, provides a wide range of documents, technical assistance, and project examples, all of which are available on the Internet at www.enhancements.org. The following examples are among the many Transportation Enhancement projects documented by NTEC.



With the help of Transportation Enhancement funding, the Galer Street Pedestrian Bridge provides safe passage over Aurora Ave. in Seattle, Washington. Photo courtesy of the National Transportation Enhancements Clearinghouse, <http://www.enhancements.org/>

Hearst Ranch Scenic Acquisition, San Luis Obispo County, California

One of the largest Transportation Enhancement awards anywhere in the nation provided \$21 million to establish a scenic easement to preserve a stretch of breathtaking coastal land along the Pacific Ocean and California's Highway 1. The easement agreement, reached between the Hearst Corporation and the California Department of Transportation, protected from development 1,445 acres of the Hearst Ranch while providing right-of-way access needed by the agency. The Hearst Corporation put the rest of the ranch (80,500 acres) under a conservation easement with the American Land Conservancy (66).

“With more than 20,000 projects on the ground around the country, transportation enhancements have proven that transportation projects can do more than efficiently move people. They can simultaneously improve local economies, enhance the environment, and create central community places.”

– *Enhancing America's Communities, A Guide to Transportation Enhancements*, National Transportation Enhancements Clearinghouse